

File
ACT/047/001

TOSCO CORPORATION
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AURORA, COLORADO 80014-1439
303/696-2700

JIM

JUL 01 1982

June 17, 1982

CORPORATE OFFICES
10100 SANTA MONICA BOULEVARD
LOS ANGELES, CALIFORNIA 90067
213/552-7000

Mr. James W. Smith, Jr.
Coordinator of Mined Land Development
State of Utah Natural Resources and Energy
Division of Oil, Gas, and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Reference: ACT/047/001

Dear Jim:

Attached please find additional clarifying information developed in response to your request of 8 June 1982 which should be incorporated in our application for the Sand Wash Development Shaft and Mine. These responses are the result of our meeting of 7 June 1982 with Sally Kefer and others of your staff and the subsequent discussions with your staff. I believe this answers all of the remaining questions that have been raised. We understand that tentative approval review may be scheduled for the June Board hearing and we thank you and the staff for that timely scheduling.

We sincerely appreciate your staff's expeditious handling of our responses and the professionalism that was exhibited throughout the review. We recognize that it takes a special effort with the current work load to perform in this manner.

Sincerely,


~~John E. Hardaway~~
Regulatory Affairs Manager

RECEIVED
JUN 20 1982

JEH:jc

Attachment: A/S

cc: Sally Kefer

bcc: (w/Attachment & Incoming Ltr of 6/8/82)

A. L. Rampton	R. J. Long	J. Moorhouse
D. Dragoo	C. P. Eddy	A. W. Schillinger
G. C. Kane	J. L. Gubka	F. Munter
T. D. King	D. Shay	B. F. Archer
J. M. Merino	K. Rasmussen	R. G. Crookston

DIVISION OF
OIL, GAS & MINING
C. S. Chang (L.A.)
W. Klein (Boulder)
DSL - Prince
Denver Files

ATTACHMENT

Numerical Order
in DOGM Letter
of June 8, 1982

Tosco
Ref. #

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|---|----------|---|
| 1 | 4 | Tosco agrees to provide a specific vegetation success standard for areas that will be seeded and to do so prior to any disturbance covered by its application dated 29 December 1981. If different revegetation standards for different areas are proposed these will be shown on a map or correlated with the soils map in the submission to the Division of Oil, Gas and Mining. The specific reclamation treatments proposed for different areas will be described in the submission if they differ from the original application. |
| 2 | 4, 7, 9a | The total area of EkD and AkC soils that would be removed is estimated to be on the order of 16 acres (p. 20 of application). The soil depth in this area is expected to range from 0 to 20 inches. Based on the estimated areas of soils involved, there will be about 28,000 cubic yards of soil removed. Please note that these calculations do not take into account inclusions of thinner soils within the designated soil types. The more precise analysis of the volume of soils will be calculated from additional field data showing the depth of suitable soils. These data will be provided to the DOGM. Any additional soils suitable for conservation and reclamation will be thoroughly analyzed to determine the suitability for stockpiling with the other soils, or the need to stockpile separately. The analysis will be physical, chemical or both and will be submitted to the DOGM. |

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Soils will be replaced, in general, in areas where they were prior to disturbance. Soils will be redistributed in a somewhat more even thickness than they occur in nature. Some of the soil is scheduled for distribution over the coarse ore pile to create a suitable seedbed for vegetation. In item 42 of the Mined Land Reclamation checklist, it was estimated that the replacement depth "may average about 6 inches," but will be determined by the availability of soils suitable for supporting plant growth and stabilizing the surface." Tosco is committed to replacing soils in those areas where (1) the soils existed prior to disturbance and (2) where reclamation will be enhanced by replacement.

Additional soils will be evaluated and prepared for protection if warranted by the soil characteristics and reclamation requirements. Protection procedures will take into account possible contamination of soil types.

Suitable soils encountered along new road rights-of-way will first be used to help stabilize embankments. If excess soil is encountered and if the material will enhance revegetation, Tosco agrees to transport the excess material to an appropriate topsoil stockpile for later use at the mine site. Tosco plans to conduct representative analyses of such soils to identify the utility of saving them. Similarly, Tosco will also conduct soil-type analyses of sediment retained within the sedimentation pond to assess use as soil.

Tosco recognizes that if soil material is added to the stockpile at a late date, the pile may be disturbed and the previously-stabilized soil will be again subject to erosion. Therefore Tosco will develop a separate soil stockpile for soils removed at a later date if necessary to limit erosion and protect the soils.

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| 3 | 6a, 6b, 9d | <p>With respect to berming of the soil stockpile, Tosco understands and commits to the use of berms or other additional erosion controls if abnormal and adverse erosion of the stockpile occurs despite revegetation. Prior to revegetation, soil stockpiles will be stabilized using measures necessary to minimize erosion and which are commensurate with establishing vegetation. Prior to seeding, the topsoil stockpile will be stabilized through compaction by hauling equipment. The surface will be cultivated, broadcast seeded, raked, and mulched. Irrigation could be employed to supplement precipitation during the first year. (See Section 5.3.1 of Application.) Tosco agrees that restriction of soil losses is the objective.</p> |
| 4 | 9b | <p>A copy of the SCS soil surveys are being sent to DOGM under separate cover. The value of 15 is "exchangeable sodium percentage" (ESP) and is taken from the SCS reports.</p> <p>The "qualified professional" will be trained to make site-specific determinations on which materials will be removed and stockpiled based on visual assessments of physical and chemical characteristics of the soils. The soils and soil associations to be removed will be mapped and staked prior to removal.</p> <p>The professional will have undergone "training" in field identification of soil horizons such that established soil quality criteria can be properly applied. The professional may be, or will have been trained by, a professional soil scientist and agronomist.</p> |

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With respect to rock material excavated from the shaft, Tosco agrees to arrange to collect an appropriate number of samples of the rock material during shaft construction, to have the samples analyzed for pH and electrical conductivity, and to report the results to the DOGM. If toxic materials are found, additional testing may be required by DOGM. These data will be used to assess the suitability of the waste rock for revegetation.

The number of ten samples will be used for planning purposes. The actual number of samples will be determined by the representativeness of analyses of the exposed strata.

6

12c

Tosco intends to stage reclamation of the coarse ore stockpile such that a portion of the pile will be available for revegetation prior to termination of the Development Shaft and Mine Program. The revegetation procedures are specified on page 70 of the Application. In this manner Tosco will obtain data on the potential success of revegetation of the coarse ore. If these early revegetation efforts are not successful, the data will be provided to the DOGM pursuant to Rule M-10(12)(3) to seek an exemption to reclaim the coarse ore stockpile.